

Eric Larkins

List of Publications by Year in descending order

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67
papers

732
citations

623188

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580395

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69
all docs

69
docs citations

69
times ranked

511
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of unintentional external feedback on the performance of high-power tapered lasers. , 2017, , .		2
2	Investigating the use of a hybrid plasmonicâ€“photonic nanoresonator for optical trapping using finite-difference time-domain method. Optical and Quantum Electronics, 2016, 48, 1.	1.5	11
3	High-power operation of coherently coupled tapered laser diodes in an external cavity. , 2016, , .		2
4	Separate phase-locking and coherent combining of two laser diodes in a Michelson cavity. Proceedings of SPIE, 2015, , .	0.8	3
5	Design and simulation of high-speed nanophotonic electro-optic modulators. , 2014, , .		0
6	Preface for HPD'13 special issue. , 2013, , .		0
7	Emulation of the operation and degradation of high-power laser bars using simulation tools. Semiconductor Science and Technology, 2012, 27, 094012.	1.0	8
8	Factors influencing the brightness and beam quality of tapered laser diodes and bars. , 2012, , .		2
9	Elimination of numerical underflow in the modelling of optoelectronic devices using multiple precision. , 2011, , .		0
10	Numerical modeling in photonic crystals integrated technology: The COPERNICUS Project. , 2011, , .		0
11	Volume Bragg grating external cavities for the passive phase locking of high-brightness diode laser arrays: theoretical and experimental study. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1289.	0.9	12
12	The impact of temperature and strain-induced band gap variations on current competition and emitter power in laser bars. Applied Physics Letters, 2011, 98, .	1.5	14
13	Independent determination of In and N concentrations in GaInNAs alloys. Semiconductor Science and Technology, 2009, 24, 105016.	1.0	4
14	Numerical modeling of photorefractive crystals for self-adapting external cavity laser mirrors. Optical and Quantum Electronics, 2009, 41, 681-688.	1.5	0
15	Wavelength-stabilized tapered laser diodes in an external Talbot cavity: simulations and experiments. , 2009, , .		0
16	Reliability assessment and degradation analysis of 1.3â€“1.4â€“m GaInNAs lasers. Journal of Applied Physics, 2009, 106, 093110.	1.1	1
17	Inclusion of thermal boundary resistance in the simulation of high-power 980Ånm ridge waveguide lasers. Optical and Quantum Electronics, 2008, 40, 373-377.	1.5	6
18	Thermal performance investigation of DQW GaInNAs laser diodes. Optical and Quantum Electronics, 2008, 40, 385-390.	1.5	5

#	ARTICLE	IF	CITATIONS
19	Introduction to the OQE special issue on "Numeric Simulation of Optoelectronic Devices" Optical and Quantum Electronics, 2008, 40, 293-294.	1.5	0
20	Numerical modeling of high-power self-organizing external cavity lasers. Optical and Quantum Electronics, 2008, 40, 1117-1121.	1.5	3
21	Static and dynamic performance optimisation of a 1.3 μ m GaInNAs ridge waveguide laser. Optical and Quantum Electronics, 2008, 40, 1181-1186.	1.5	3
22	Improvement of the beam quality of a broad-area diode laser using asymmetric feedback from an external cavity. Optical and Quantum Electronics, 2008, 40, 1097-1102.	1.5	9
23	An investigation of thermal boundary resistance in 1.3 μ m edge-emitting dilute nitride quantum well laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 485-489.	0.8	1
24	Thermally dependent gain of 1.3 μ m dilute nitride double quantum well lasers. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 490-494.	0.8	1
25	Photoluminescence microscopy investigation of lattice relaxation and defect formation processes in pseudomorphically strained InGaAsN multiple quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 467-472.	0.8	2
26	Narrow-line coherently combined tapered laser diodes in a Talbot external cavity with a volume Bragg grating. Applied Physics Letters, 2008, 93, 211102.	1.5	42
27	Optimization of RF plasma sources for the MBE growth of nitride and dilute nitride semiconductor material. Semiconductor Science and Technology, 2007, 22, 15-19.	1.0	16
28	High power 980 nm tapered lasers with separate contacts: numerical simulation and comparison with experiments. , 2007, , .		0
29	The impact of hot-phonons on the performance of 1.3 μ m dilute nitride edge-emitting quantum well lasers. Journal of Physics: Conference Series, 2007, 92, 012068.	0.3	10
30	Simulation of Tapered Lasers with Separate Contacts. , 2007, , .		0
31	Enhanced Brightness of Tapered Laser Diodes Based on an Asymmetric Epitaxial Design. IEEE Photonics Technology Letters, 2007, 19, 1640-1642.	1.3	11
32	The impact of nonequilibrium gain in a spectral laser diode model. Optical and Quantum Electronics, 2007, 38, 1019-1027.	1.5	16
33	Introduction to the OQE Special Issue on "Numeric Simulation of Optoelectronic Devices" Optical and Quantum Electronics, 2007, 38, 933-934.	1.5	0
34	The Impact of Nonequilibrium Gain in a Spectral Laser Model. , 2006, , .		0
35	Efficient Near IR Photoluminescence from Gallium Nitride Layers Doped with Arsenic. Semiconductors, 2005, 39, 73.	0.2	0
36	Optimization of epitaxial layer design for high brightness tapered lasers. , 2005, , .		0

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37	High-power diode lasers with an aluminium-free active region at 915 nm. , 2005, , .		1
38	Fourier transform analysis method for modeling the positions and properties of cavity defects in Fabry-Pérot laser diodes. Applied Physics Letters, 2005, 86, 061104.	1.5	3
39	By-emitter degradation analysis of high-power laser bars. Journal of Applied Physics, 2005, 98, 063101.	1.1	16
40	Imaging of spontaneous emission from 980-nm tapered lasers with windowed N-contacts. EPJ Applied Physics, 2004, 27, 455-459.	0.3	2
41	The study of strain and defects in high power laser diodes by spectroscopically resolved photoluminescence microscopy. EPJ Applied Physics, 2004, 27, 469-473.	0.3	3
42	Photoluminescence from self-assembled GaAs inclusions embedded in a GaN host crystal. Physica Status Solidi (B): Basic Research, 2003, 238, 204-212.	0.7	3
43	Study of photoluminescence from self-formed GaAs nanocrystallites in As-doped GaN grown by molecular beam epitaxy. Semiconductor Science and Technology, 2003, 18, 997-1000.	1.0	2
44	Design of short-cavity, high-brightness 980 nm laser diodes with distributed phase correction. Applied Physics Letters, 2002, 80, 3506-3508.	1.5	2
45	Wideband finite-difference-time-domain beam propagation method. Microwave and Optical Technology Letters, 2002, 34, 243-247.	0.9	14
46	Improved refractive index formulas for the $\text{Al}_x\text{Ga}_{1-x}\text{N}$ and $\text{In}_y\text{Ga}_{1-y}\text{N}$ alloys. Journal of Applied Physics, 2001, 89, 1108-1115.	1.1	156
47	Photoluminescence spectroscopy on annealed molecular beam epitaxy grown GaN. Journal of Applied Physics, 2001, 89, 1070-1074.	1.1	19
48	Determination of the band offset and the characteristic interdiffusion length in quantum-well lasers using a capacitance-voltage technique. Applied Physics Letters, 2000, 77, 776-778.	1.5	5
49	Optical and photoelectric study of mirror facets in degraded high power AlGaAs 808 nm laser diodes. Journal of Applied Physics, 2000, 87, 3227-3233.	1.1	33
50	Study of GaN thin layers subjected to high-temperature rapid thermal annealing. Semiconductors, 1998, 32, 1048-1053.	0.2	6
51	Carrier profile for $\text{In}_{0.35}\text{Ga}_{0.65}\text{As}/\text{GaAs}$ multi-quantum well lasers from capacitance-voltage measurements. Applied Physics Letters, 1996, 68, 1138-1140.	1.5	12
52	Influence of interdiffusion processes on optical and structural properties of pseudomorphic $\text{In}_{0.35}\text{Ga}_{0.65}\text{As}/\text{GaAs}$ multiple quantum well structures. Journal of Applied Physics, 1996, 79, 6818-6825.	1.1	19
53	Process parameter dependence of impurity-free interdiffusion in $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$ and $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ multiple quantum wells. Journal of Electronic Materials, 1995, 24, 805-812.	1.0	58
54	Picosecond spectroscopy of optically modulated high-speed laser diodes. Applied Physics Letters, 1995, 67, 1809-1811.	1.5	6

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55	Tunneling assisted thermionic emission in double-barrier quantum well structures. Journal of Applied Physics, 1995, 77, 2537-2543.	1.1	5
56	Impurity free selective interdiffusion of pseudomorphic $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ multiple quantum well laser and modulator structures. Materials Science and Technology, 1995, 11, 840-844.	0.8	3
57	Field dependence of carrier capture in $\text{GaAs}/\text{AlAs}/\text{AlGaAs}$ double-barrier quantum well structures. Semiconductor Science and Technology, 1995, 10, 1329-1338.	1.0	6
58	Gain switching in high-speed semiconductor lasers: Intermediate-signal analysis. Applied Physics Letters, 1994, 65, 661-663.	1.5	5
59	Nonresonant electron capture in $\text{GaAs}/\text{AlAs}/\text{AlGaAs}$ double-barrier quantum well infrared detectors. Applied Physics Letters, 1994, 64, 1015-1017.	1.5	4
60	$\text{InGaAs}/\text{GaAs}$ multiple-quantum-well modulators and switches. Optical and Quantum Electronics, 1993, 25, S865-S883.	1.5	26
61	Strain relaxation in high-speed $\text{In}_{0.2}\text{Ga}_{0.8}\text{As}/\text{GaAs}$ multiple quantum wells. Applied Physics Letters, 1993, 63, 2920-2922.	1.5	15
62	Space-charge effects in photovoltaic double barrier quantum well infrared detectors. Applied Physics Letters, 1993, 63, 782-784.	1.5	32
63	Monolayer-resolved x-ray-excited Auger-electron diffraction from single-plane emission in GaAs . Physical Review B, 1993, 48, 11838-11845.	1.1	14
64	Defect and strain redistribution in $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ multiple quantum wells studied by resonant Raman scattering. Applied Physics Letters, 1993, 63, 1842-1844.	1.5	13
65	Diffusive electrical conduction in high-speed $\text{In}_{0.2}\text{Ga}_{0.8}\text{As}/\text{GaAs}$ photodetectors. Applied Physics Letters, 1992, 60, 2648-2650.	1.5	18
66	Influence of the $\text{As}:\text{Ga}$ flux ratio on growth rate, interface quality, and impurity incorporation in $\text{AlGaAs}/\text{GaAs}$ quantum wells grown by molecular beam epitaxy. Applied Physics Letters, 1989, 54, 623-625.	1.5	20
67	Reduction of the acceptor impurity background in GaAs grown by molecular beam epitaxy. Applied Physics Letters, 1986, 49, 391-393.	1.5	27